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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,536	04/01/2004	John M. Stropki JR.	LEEE 2 00358	1570
27885	7590	04/25/2006	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			KERNs, KEVIN P	
			ART UNIT	PAPER NUMBER

1725

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,536	<b>Applicant(s)</b> STROPKI ET AL.	
	<b>Examiner</b> Kevin P. Kerns	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-43 and 52-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 44-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-57 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/1/04, 2/3/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicants' election without traverse of Group III (claims 44-51) in the reply filed on April 7, 2006 is acknowledged.

### ***Specification***

2. The disclosure is objected to because of the following informalities: on page 6, 12<sup>th</sup> line, insert "(see FIG. 5)" after "23" for further clarity, as "23" is not present in FIG. 4. On page 8, line 22, replace "6" with "8" after "section". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 44-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 44 recites the limitations "said welding output device" and "said conversion". There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 44, 48, and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2 316 244.

GB 2 316 244 discloses a battery powered electric arc welder, in which the welder includes a welding station, with the welding station including the area adjacent electrodes (12,16) and workpiece W; a rechargeable battery 10 that supplies DC battery voltage; means for recharging the battery (page 1, line 11) that is operable to be powered from an external AC power source, such as the mains, vehicle alternators/dynamos, etc. (page 3, lines 8-10) by use of a connecting cable, or extension cord; a high switching speed converter coupled to the battery (transistor T having a switching frequency of 10kHz); and a controller (control circuit 14) coupled to the welder with a feedback circuit (page 1, lines 28-31) further coupled with the welding station (abstract; page 1, line 9 through page 4, line 22; and Figures 1 and 2).

7. Claims 44, 48, and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi et al. (US 5,250,786).

Kikuchi et al. disclose a DC arc welding apparatus, in which the apparatus includes a welding station, with the welding station including the area adjacent battery-

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driven welder 10, engine-driven welder 20, and associated electrodes and workpiece(s); a rechargeable battery 11 that supplies DC battery voltage; means for recharging the battery (charging device 19) that is operable to be powered from an external AC power source, such as an output terminal 206 of an alternator 201 (column 5, lines 32-39; and Figure 2) by use of a connecting cable, or extension cord; a high switching speed converter coupled to the battery (chopper control device 18 – column 5, lines 18-26; and Figure 2); and a controller (control circuit 105) coupled to the welder with a feedback circuit (column 6, lines 65-68; column 7, lines 1-6; column 8, lines 14-36; and Figure 4) further coupled with the welding station (abstract; column 1, lines 7-11; column 3, lines 30-64; column 4, line 48 through column 7, line 39; column 8, lines 14-36; column 11, lines 26-39; and Figures 1, 2, and 4).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over either GB 2 316 244 or Kikuchi et al. (US 5,250,786) in view of DE 26 50 522.

GB 2 316 244 and Kikuchi et al. individually disclose the features of claims 44, 46, and 47. Neither GB 2 316 244 nor Kikuchi et al. discloses that the battery and converter are movable on a wheeled carriage.

However, DE 26 50 522 discloses a rollable arc welding trolley for inert gas welding, in which the welding trolley includes mounted batteries that supply DC voltage, such that the trolley further includes wheels, for the purpose of providing portability for the welder, while avoiding the requirement of mains electricity connection during welding, and no welding transformer (abstract; and Figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the battery powered electric arc welding devices, as disclosed individually by GB 2 316 244 and Kikuchi et al., by using a wheeled carriage for a DC voltage welder, as taught by DE 26 50 522, in order to provide portability for the welder, while avoiding the requirement of mains electricity connection during welding, and no welding transformer (DE 26 50 522; abstract).

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11. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over either GB 2 316 244 or Kikuchi et al. (US 5,250,786) in view of Baker (US 5,864,116).

GB 2 316 244 and Kikuchi et al. individually disclose the features of claim 44. Neither GB 2 316 244 nor Kikuchi et al. specifically discloses that the high switching speed converter is a DC down chopper.

However, Baker discloses a DC chopper with inductance control for welding, in which the chopper 10 is a multi-stage DC down chopper for use in arc welding, such that the chopper includes a DC input source, 1<sup>st</sup> and 2<sup>nd</sup> switching stages, 1<sup>st</sup> and 2<sup>nd</sup> switch devices, and 1<sup>st</sup> and 2<sup>nd</sup> chokes, such that the DC down chopper is advantageous for providing a minimum current override feedback circuit, whereby the current in the welding operation never decreases below a given set current level, thus allowing the welding arc to remain stable (abstract; column 1, lines 4-8; column 2, line 37 through column 4, line 58; column 5, lines 45-67; column 6, lines 1-67; and Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the battery powered electric arc welding devices, as disclosed individually by GB 2 316 244 and Kikuchi et al., by using a DC down chopper, as taught by Baker, in order to provide a minimum current override feedback circuit, whereby the current in the welding operation never decreases below a given set current level, thus allowing the welding arc to remain stable (Baker; abstract; column 3, lines 40-48; and column 4, lines 37-58).

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**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 56-77068 and JP 5-23852 are also cited in PTO-892.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns 4/20/06*  
Primary Examiner  
Art Unit 1725

KPK  
kpk  
April 20, 2006